

GPU Fast Charger

24V DC CHARGING SYSTEM



GPU 1700 and GPU 2400 portable aircraft start units are supplied with an internal 2.3A emergency charger designed to recharge the unit over an extended time period.

Frequent users of the GPU 1700 and GPU 2400 aircraft start units who require expedited charge times should consider the optional GPU fast charger.

The Powervamp GPU Fast Charger is designed to re-charge your GPU 1700 / GPU 2400 units quickly and safely whilst also optimising the batteries for maximum longevity.

These microprocessor controlled fast chargers include a 3-stage step charge control with a low current start up and battery recovery feature.

Each charger is also fitted with reverse polarity, short circuit protection and temperature controlled compensation.

NOTE – when frequent charging the GPU 1700 Twin or GPU 2400 Twin aircraft start units, it is recommended that 2 individual chargers are used.

GPU Fast Charger connection

For GPU 1700 and GPU 2400: 24V Fast Charger with Merit connector





Specifications

Input	198-264V AC/47-63Hz/single phase				
Output power	294W				
Charge timer (step 2)	4 hours ± 30 mins				
Safety timer	72 hours				
Maximum charge current	10A				
Ripple	< 100 mV p-p				
Efficiency (at 100% load)	> 83%				
Switch Frequency	67 kHz (approx.)				
Operating Temperature	-25°C to +40°C (77°F to 104°F) Storage -25°C to +85°C (77°F to 185°F)				
Protections	- Short circuit - Reversed polarity - Over-temperature - Safety timer				
Safety	EN 60335-2-29				
Insulation class	Class I				
Insulation voltage	Primary ground1500V ACPrimary secondary4000V ACSecondary ground500V AC				
EMC	EN 61000-6-3 EN 61000-6-1 EN 55014				
IP rating	IP20				
Dimensions (LxWxH)	H 58mm (2.8in), L 210mm (8.3in), W 148mm (75.8in)				
Weight	1.55kg (3.4lbs)				

Features

- 3-step charging with microprocessor control
- Low current start-up of deeply discharged batteries (step 0)
- Boost charge (step 1)
- Top-up charge (step 2)
- Pulsing float charge (step 3)
- Temperature compensation
- Protected against reversed polarity and short circuit proof
- Unaffected by fluctuations from input voltage
- 3-pin IEC-60320 input connector

CHARGE CONTROL - LED INDICATION

	Step 0 < 30 min (Yellow)	Step 0 > 30 min (Red=error)	Step 1 (Yellow)	Step 2 (Flash Yellow)	Step 3 (Green)	Float charge
24V	1.3A ± 0.5A (batt. volt < 21V)	< 0.3A	10A ± 0.5A 21-29.4V	29.4V ± 0.1V (until I charge < 1.3A or > 4hr)	27.4V ± 0.2V (until I charge > 10A)	27.4.V ± 0.2V

Charging characteristics and LED indication

INDICATOR: YELLOW		INDICATOR: FLASHING YELLOW	INDICATOR: GREEN
		Battery Voltage 29 4V	Battery Voltage 27.4V
	Battery Voltage 21V Charge Current (see tech spec)		Current pulses at safe float voltage level for maximum topping of battery capacity. Pulse frequency: Microprocessor controlled. Pulse Current: (see tech spec)
	Low Current Start-Up Vbatt <21V Error Mode if <21V after 30 minutes	(see tech spec)	
Step 0 Start Timer (0.5 hours)	Step 1 Boost Charge	Step 2 Top Up Charge (4 hours)	Step 3 Float Charge
	Safety Timer (72 hours)		



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